

***COSTRUZIONI MACCHINE AGRICOLE***

**GALFRE**

di **GALFRE' DOMENICO & C. SRL**

Via Centallo, 136 - ROATA CHIUSANI

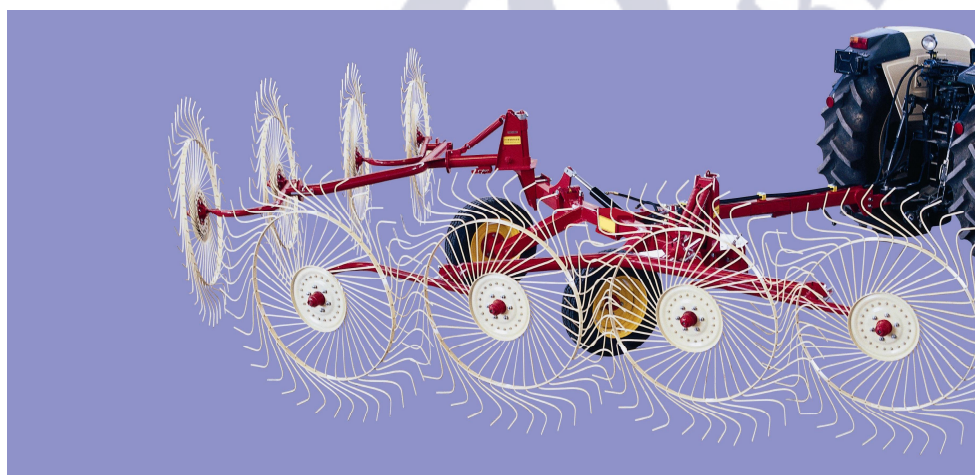
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## **USER MANUAL – ASSEMBLY – SPARE PARTS**



## **FINGERWHEEL RAKE AGW2/3/4/5/6 – AGW8 – AGW10**

# **DECLARATION OF CONFORMITY**

The manufacturer **Galfrè Domenico & C. SRL**

Via Centallo, 136 - ROATA CHIUSANI - 12044 CENTALLO (CN) Italy

Tel 0171.718005 Fax 0171.718004

declares under its responsibility that the machine:

## **FINGERWHEEL RAKE**

**Model .....**

**Serial number n. ....**

**Year .....**

fully complies with Essential Requisites for Safety  
and for Safeguarding health set out in:

**2006/42/CE** (Repealing Directives 98/37/Ce e 89/392/CEE)

With the aim of verify the conformity towards those directives,  
we consult the harmonized standard:

*EN 1553*

*UNI 10759*

and technique specific:

ISO 11684

Centallo (CN), \_\_\_\_\_

The legal administrator

\_\_\_\_\_

### AGW – MOUNTED HAY RAKE

2/3/4/5/6 wheel hay rake is easily adaptable to each type of tractor by its 3 point linkage. It is a machine that saves a lot of time and work. Our machine can be used on each kind of field and it help farmers to make work easier than previous. It is used for the seperating the green herb over the field to ventilate them to dry in a short time. It can be used to collect the cutted plant stalks (barley, wheat stalks...) together to put this in a standart row and bt this way the plant stalks return to the economy and obins extra gain.

MODEL	LENGHT	WORKING WIDTH	TRANSPORT WIDTH	WEIGHT	WHEEL #
AGW - 04	425 cm	250 – 300 cm	140 cm	175 kg	4

### AGW – 08 CARTED HAY RAKE

8 wheel hay rake is easily adaptable to each type of tractor by its 3 point linkage. By means of high work capacity that saves a lot of time and work. Our machine can be used on each kind of field and it help farmers to make work easier than previous. It is used for the seperating the green herb over the field to ventilate them to dry in a short time. It can be used to collect the cutted plant stalks (barley, wheat stalks...) together to put this in a standart row and bt this way the plant stalks return to the economy and obtains extra gain.

MODEL	LENGHT	WORKING WIDTH	TRANSPORT WIDTH	WEIGHT	WHEEL #
AGW - 08	670 cm	520 – 610 cm	300 cm	485 kg	8

### AGW – 10 CARTED HAY RAKE

10 wheel hay rake is easily adaptable to each type of tractor by its 3 point linkage .At pleasure GVR-10 can be turn into 8 wheel hay rake with one pin. By means of high work capacity that saves a lot of time and work. Our machine can be used on each kind of field and it help professional farmers to make work easier than previous .It is used for the seperatingthe green herb over the field to ventilate them to dry in a short time. It can be used to collect the cutted plant stalks (barley , wheat stalks...) together to put this in a standart row and by this way the plant stalks return to the economy and obtains extra gain.

MODEL	LENGHT	WORKING WIDTH	TRANSPORT WIDTH	WEIGHT	WHEEL #
AGW - 10	760 cm	520 – 700 cm	410 cm	580 kg	10

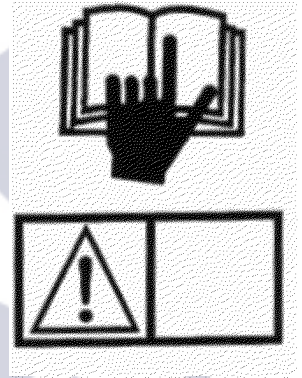
## Safety Messages

### READ MANUALS

Do not operate the machine unless the instructions in the following manuals have been carefully read and understood:

This Wheel Rake Operator's Manual

Tractor Operator's Manual



### FOLLOW INSTRUCTIONS

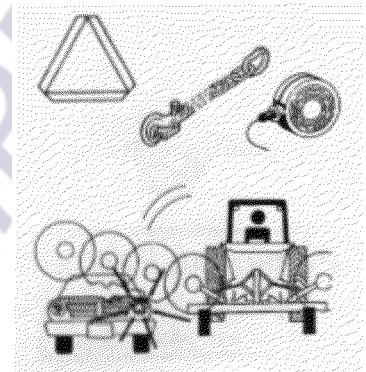
Carefully read and understand all safety messages in this manual and on your machine safety decals.

Safety decals located on your machine contain important information that will help you operate your equipment safely. Keep safety decals in good condition. Replace missing or damaged safety decals.

Allow only responsible, properly instructed individuals to operate the machine. Carefully supervise inexperienced operators.

### TOWING IMPLEMENTS ON PUBLIC ROADS

Before towing the implement, attach the safety chain to the drawbar support or other specified anchor location. Safety chains will reduce the risk of injury due to collision or loss of vehicle control if the drawn implement becomes unhitched from drawbar.



Provide enough slack in the chains to permit turning.

Obey all applicable laws regarding the use of lights, a slow moving vehicle sign, safety chain and other possible requirements concerning road use. Use good judgment and drive carefully.

### REDUCE SPEED WHEN TOWING LOADS

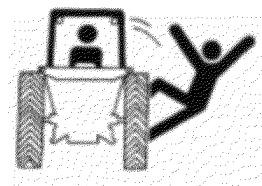
Be sure that the tractor is large enough to have adequate braking and steering control when towing implements that do not have brakes.

Reduce speed if towed load without breaks weighs more than the tractor.

Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.

### NO RIDERS

Be sure the tractor operator is the only person riding the tractor. Do not allow riders on the machine.



### CHECK THE FIELD

Be alert and use extreme caution when operating on hillsides or near ditches, gullies, holes, or obstructions where rollover could occur.



Watch out for and avoid any object that might interfere with the proper operation of the machine (i.e. stones and limbs).

### **AVOID HIGH PRESSURE LEAKS**

Pressurized fluid can penetrate body tissue and result in serious injury or death. Leaks can be invisible. Relieve pressure before working on system. When searching for a leak, use an object like cardboard - not your hand. A surgeon familiar with this type of injury must remove fluid injected under the skin immediately.



### **AVOID TIRE EXPLOSION**

Tire explosion can result if the following procedures are not followed: Maintain correct tire pressure. Do not inflate tire above recommended pressure. Check for low tire pressure. Inflate to recommended pressure.

Replace any tire with cuts, bubbles, or damaged rims.

Do not weld or heat wheel assembly. Heating will increase tire pressure.

### **SAFETY DECALS**

Safety decals located on your machine contain important and useful information that will help you operate your equipment safely. Each of the safety decals is shown below and in the parts book under “decals assembly”. All safety decals also appear elsewhere in the parts manual where they are displayed with other assemblies of which they are a part.

To assure that all decals remain in place and remain in good condition, follow-the-instructions. Given below:

1. Keep decals clean. Use soap and water -Not mineral spirits, adhesive cleaners and other similar cleaners that will damage the decal.
2. Replace any damaged or missing decals. When attaching decals, the surface temperature of the metal must be at least 40 degree F. The metal must also be clean and dry,
3. When replacing a machine component with a decal attached, replace the decal also.
4. Purchase replacement decals from your Wheel Rakes dealer.

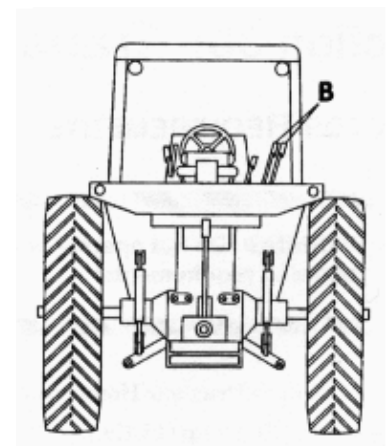


### **AUXILIARY HYDRAULIC CONTROL**

Hydraulic control lever (B) is used to raise and lower the rake arms.

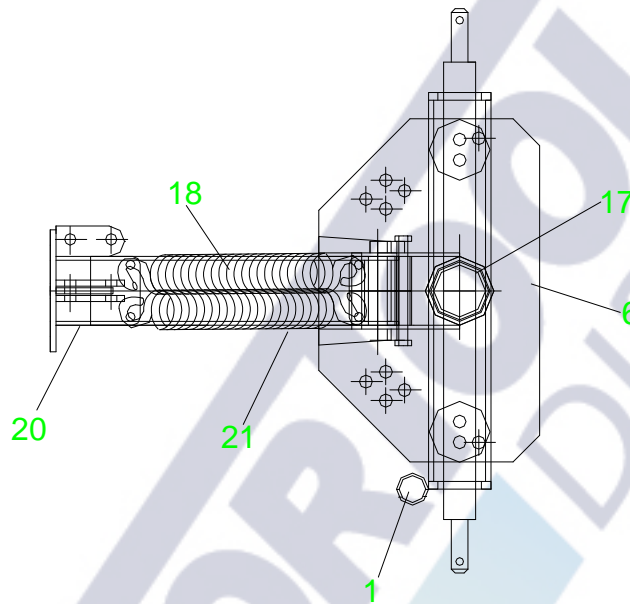
Some tractors have detents, which will not allow the tractor lever to return to neutral on its own. The lever must be returned to neutral manually to prevent overheating of the hydraulic system.

**NOTE:**Layout varies with tractor model. Consult your tractor operator's manual.



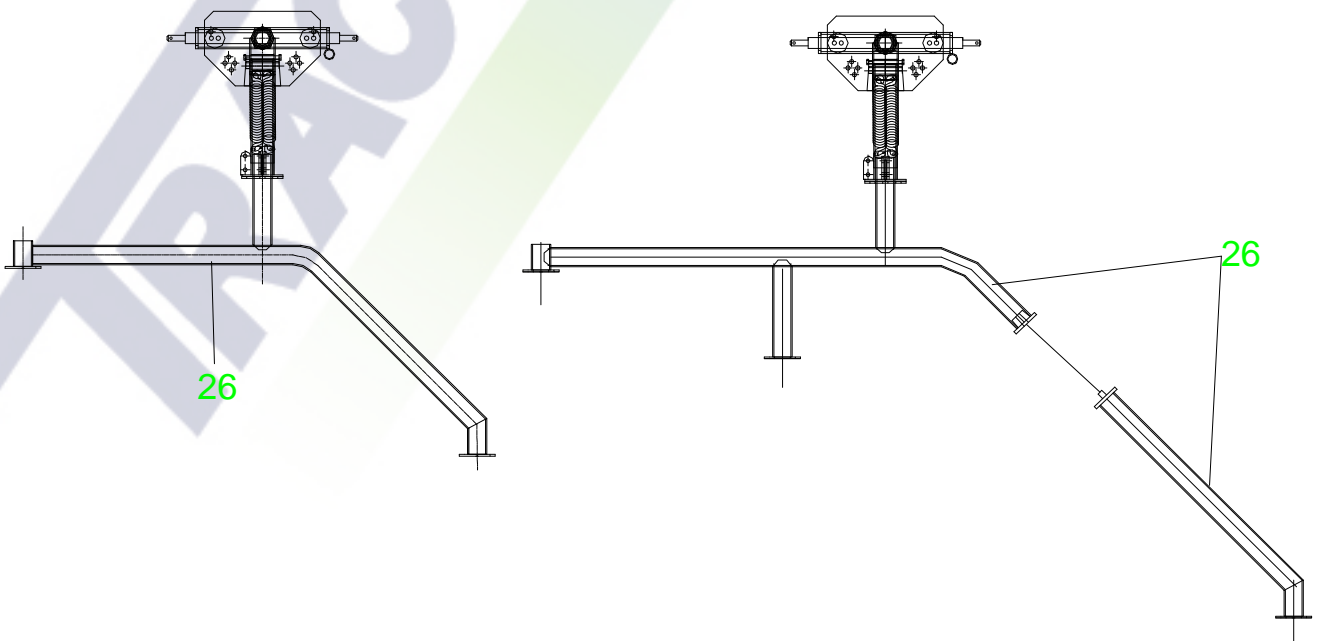
## ASSEMBLY INSTRUCTIONS (AWG-10 02)

- a) Position the parking stand (1) 1 in its housing and lock it with the pin (2) Next, lay the primary structure supplied assembled on the ground with the swinging pipe (20) upwards picture 1.



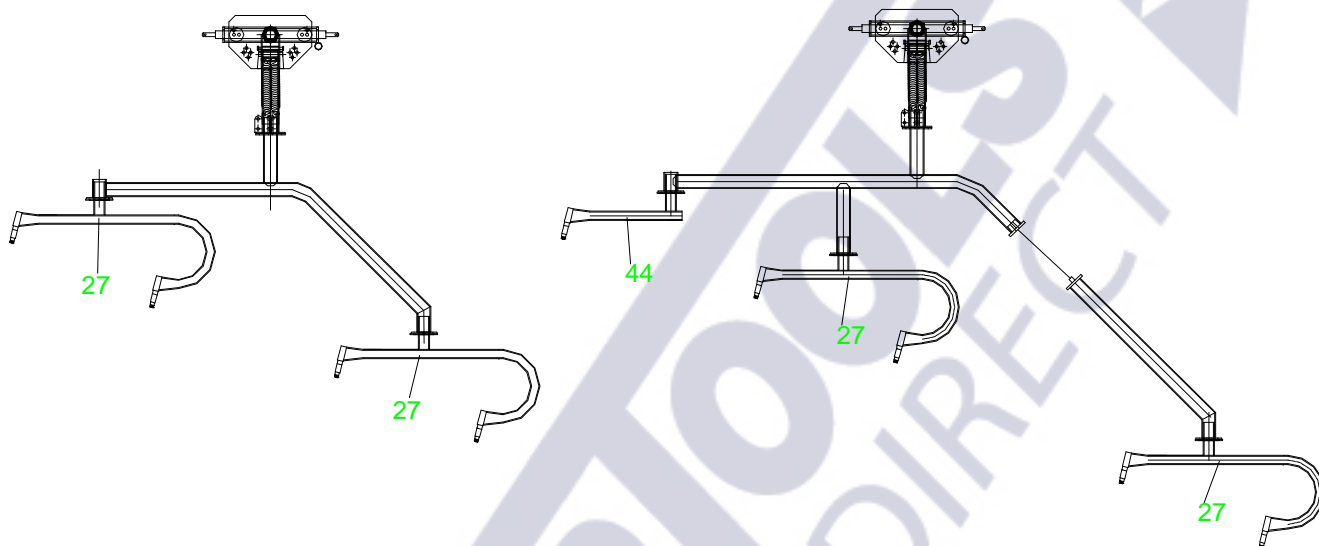
**Pict.1**

- b) Slide the main pipe (26) into the swinging pipe (20) and retain with the supplied lever (22) and pin (23) so that it is on axis with the three-point hitch (pict. 2).



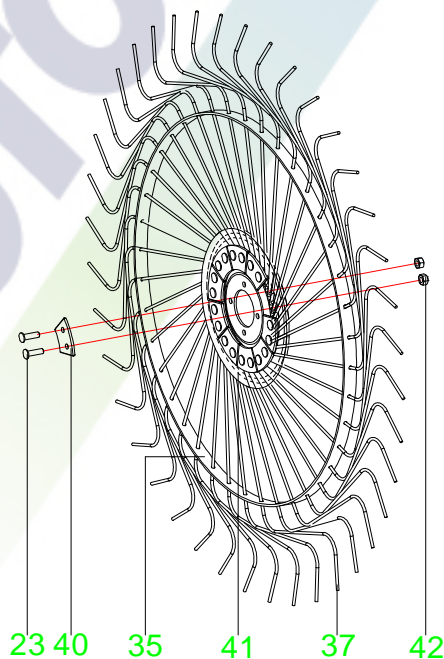
**Pict.2**

c) At AWG04 hay rake; attach the axles (27) to the main pipe (26) by the hel of flanges, side lock lamas (22) and pin (25), as you see picture 3.  
At AWG04 hay rake; attach the axle (27) from external to the inside as axle (27) and single axle (44),



**Pict.3**

d) Attach the wheel assembly (43) to the hub (28) with bolt (23) and nut (42) according to for every axle (27) 2 units, for single axle (44) 1 unit. For AWG-04 4 units

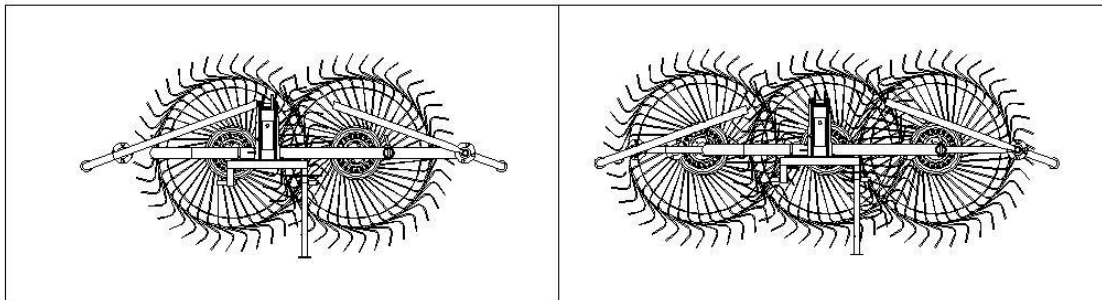


**Pict.4**

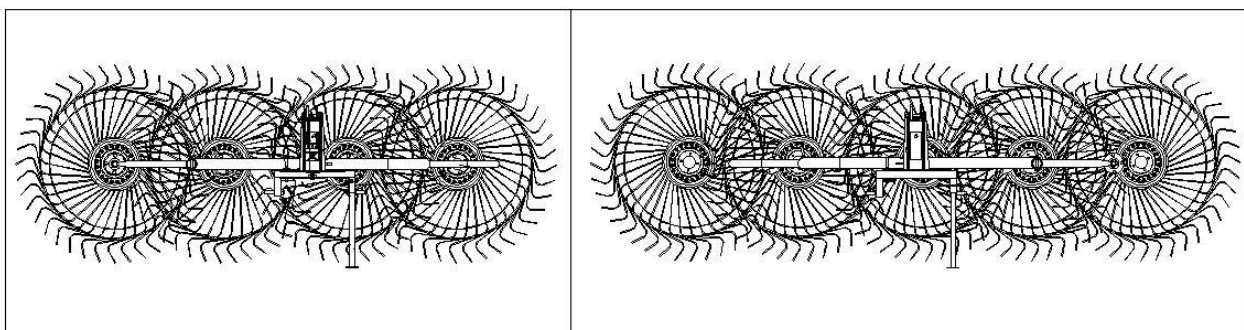
e) Lift the wheels (x) from the ground until they are in the working position. Above are the instructions for the R.H. rake assembly. Please refer to the above instructions also for the L.H. rake assembly. Most parts are interchangeable for both rakes only the specific parts are marked RIGHT or LEFT.

f) Unlock the primary structure with the supplied lever (22) and pin (25), turn it by 90 degrees and lock it again with the same pin. Now the rake is properly positioned on the ground and you only have to attach the remaining wheels as explained above.

The rake is now fully assembled and ready to be mounted to the tractor .



Pict.5



Pict.6



## ASSEMBLING (AWG-10 01)

- a) Attach the drawbar (52) to the back frame (31) by bolt (27) and plate of frame (41). Attach the jack (5) and wheel (36). Fig 29.
- b) Attach the lift arm RH and LH (33-22) to the back frame (31) with pin (28)

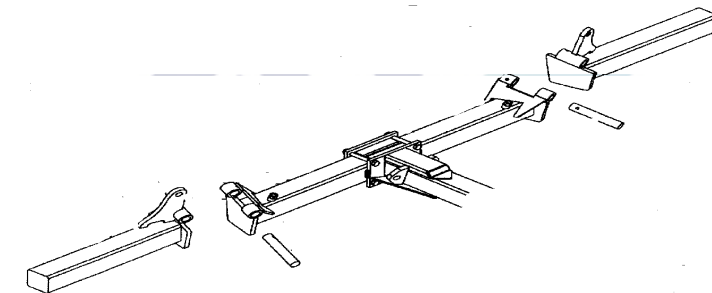


FIG. 32

- c) Attach the lift (25) and hose 3.00m-3.25m (13-14) as it shown at the motaging AWG-10
- d) Attach the under of front arrangement RH-LH (34-35) to the lift arm RH-LH (33-22) by bolt (2) and plate of arrangement (32)

- e) Attention that the lift hoses (13-14) mustn't be free and must be attached to the drawbar with hose collar (15)
- f) After you attach the pintle (1) with bolt-nut-washer (2-3-4).

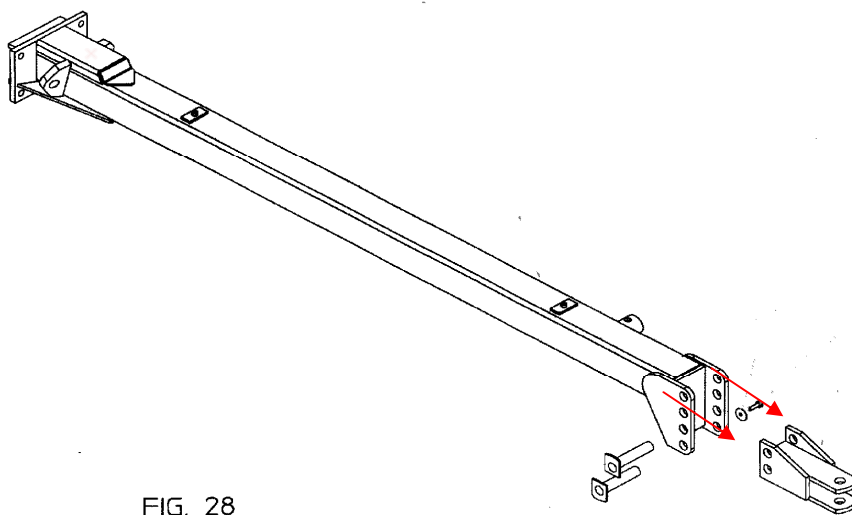


FIG. 28

- g) After you finish the part montage of AWG-02 MONTAGE it the under front arrangement (34-35) which is attached to the lift arm and start to use.

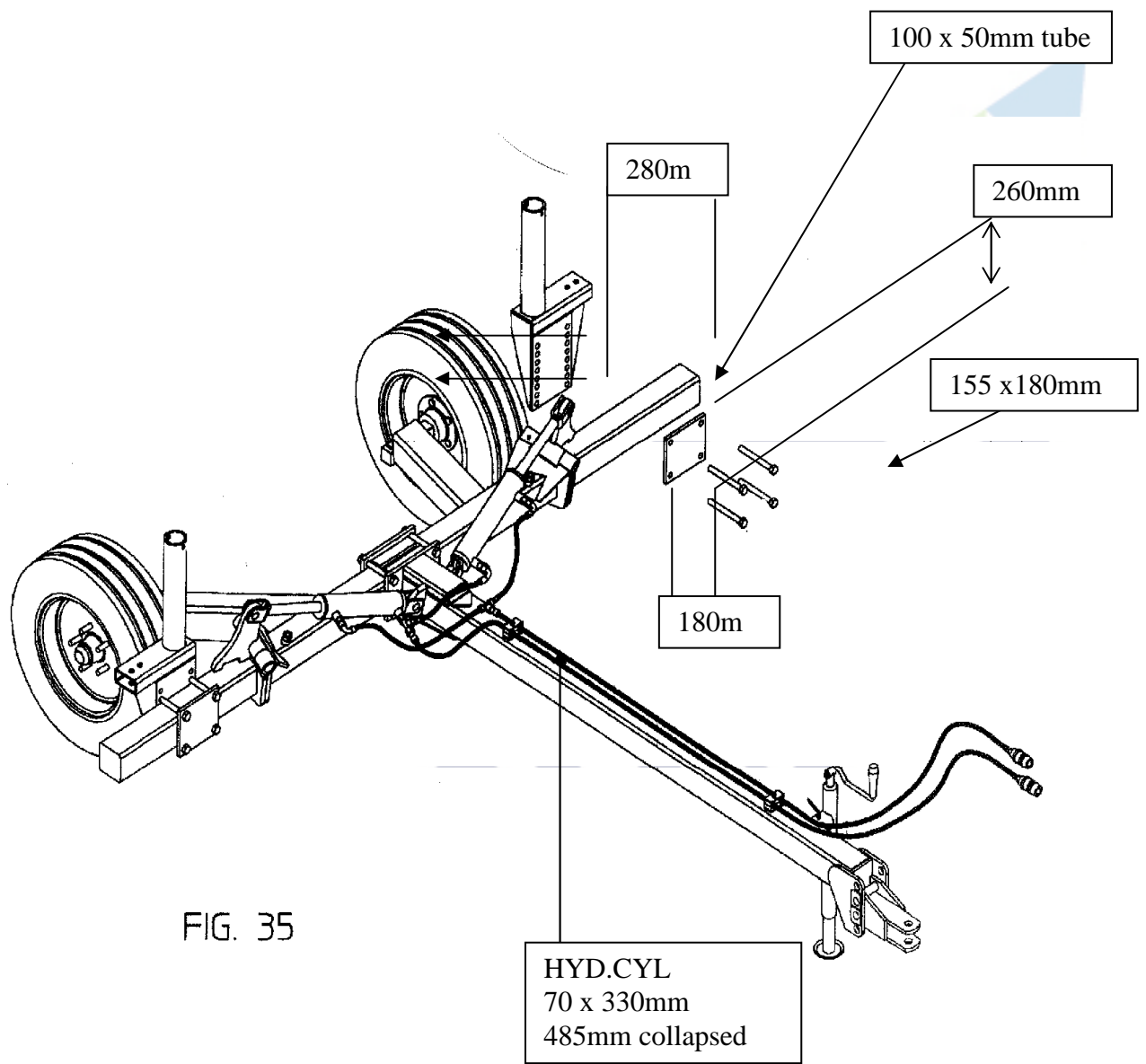


FIG. 35

## ASSEMBLING

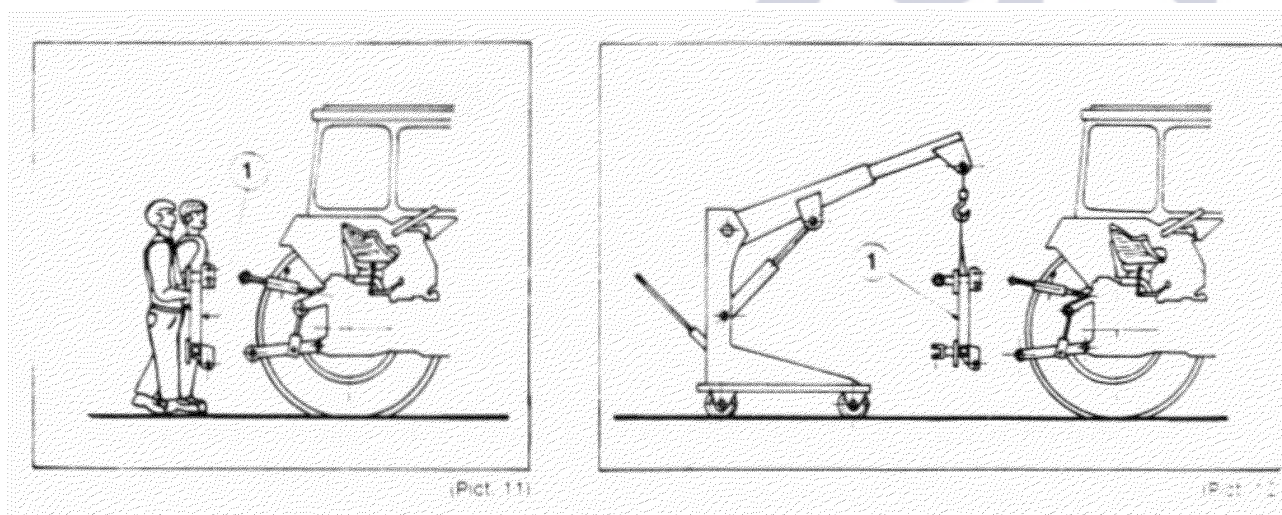
a) Attach the frame RH (3) and frame LH (4) to each other by bolt (5) and nut, washer (12-13) as you see at frame assembling. Look at the assembling AWG-10 02

b) Attach the connection lamas, as the shape of connection lama 1 (10) will be at the back and connection lama 2 (11) in the front, to the frame 2 units from each as right and left, by the help of bolt (9), nut (12) and washer (13). Picture .

**Pict.7**

c) After than attach the frame to the tractor by the help of somebody or by crane with in (6)and lynch pin (7).pict.8

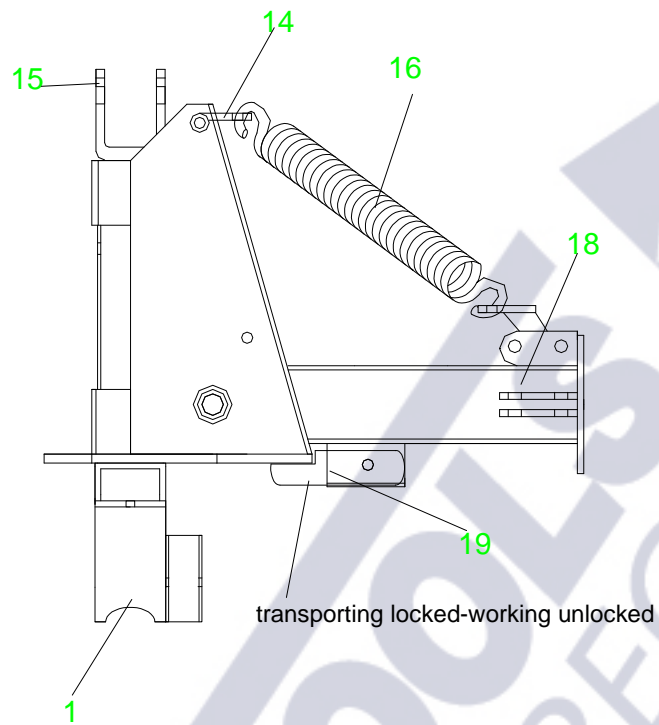
**Pict.8**



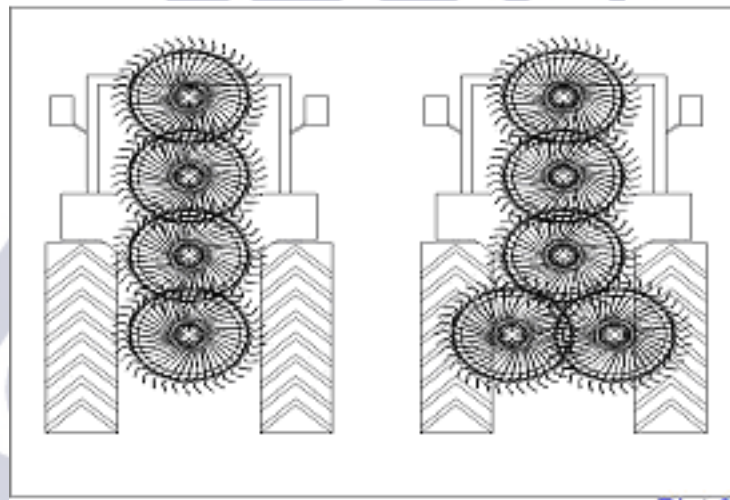
When the rake is ready to be mounted to the tractor ( pict. 6) attach the lifting arms to the pins on both sides of the primary structure (1). Next, attach the three-point arm to the cap (15) of the primary structure with the pin. Now lift the rake to its highest setting and for transport lock with the pin (19) for no rake floating (pict. 7). Retain the part (14) to the crossbar (1) with the pin (9) into hole 1 (pict. 15) of the above said crossbar. Now turn the main pipe (24) and bring the rake to the vertical position for transport (pict. 10)

Never operate the rake with the pin (19) in the locked position. The locked position is for transport only





**Pict.9**



**Pict.10**

**AWG-08 and AWG-10 V-rakes are made as follows:**

- 1 main frame (1) complete of hitches (4-12)
- 1 R.H. RP- 4 or RP- 5 rake. Duly assembled as above.
- 1 L.H. RP- 4 or RP- 5 rake, duly assembled as above.

On the R.H. and L.H. GR-04 and GR-05 rakes only the wheel arms and the wheels are specific, all other parts are interchangeable for both rakes. The specific parts are marked RIGHT (for the RH. rake and LEFT for the L.H. rake).

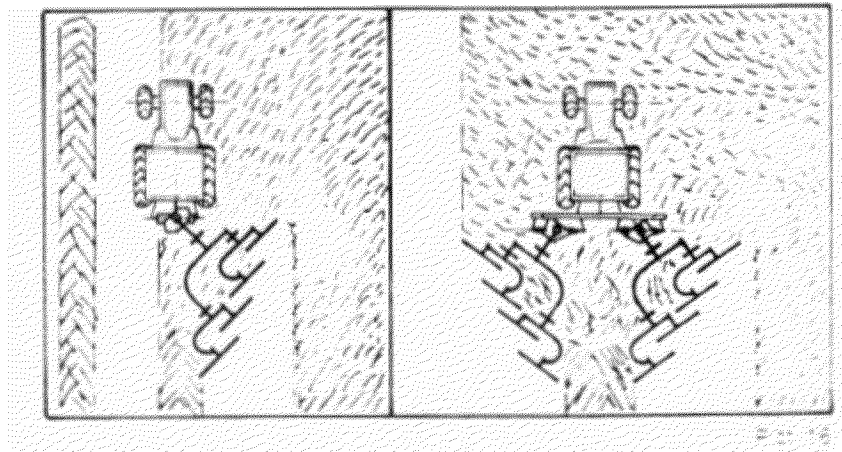
## OPERATING INSTRUCTIONS

The rake is suitable for:

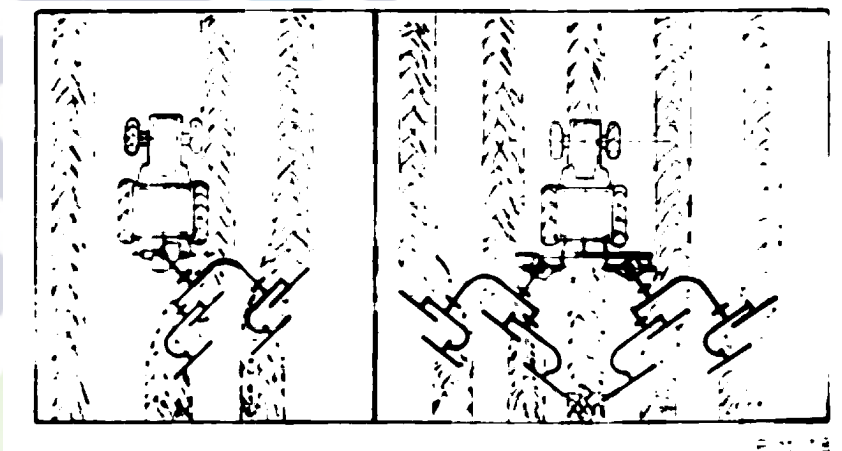
1) **RAKING** (pict. 16) Turn the main pipe (26) with the bend to the left. Turn the wheel arms (27) (on RP-5 rake turn the wheel arm 55 as well) with the bend to the left.

2) **SPREADING** (pict. 17) Turn the main pipe (3) with the bend to the left Turn the wheel arms (27)

3) **TURNING** (pict. 15) Turn the main pipe (3d) with the bend to the right. Turn the wheel arms (27) (on GR-5 rake turn the wheel arm 55 as well) with the bend to the left.

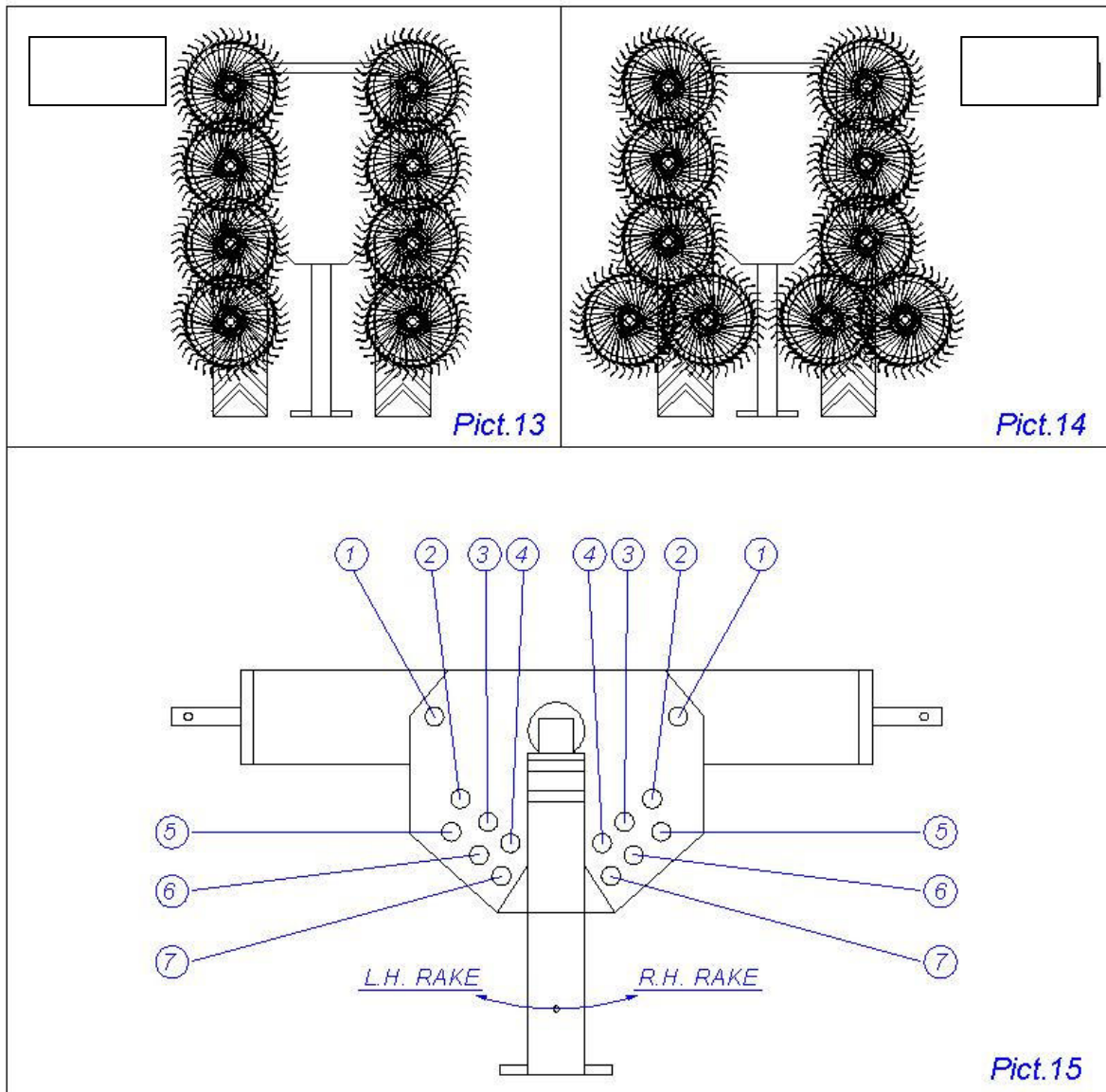


Above we have described how to set a R.H. rake for the different operations. If you need to set a L.H. rake for the above operations, please refer to pictures 16-17 and 18 of V-rakes.



Insert the hitches (1-15) of front arrangement to the bolted lamas (10-11) on frame and lock it with pin (8) and linch pin (7)

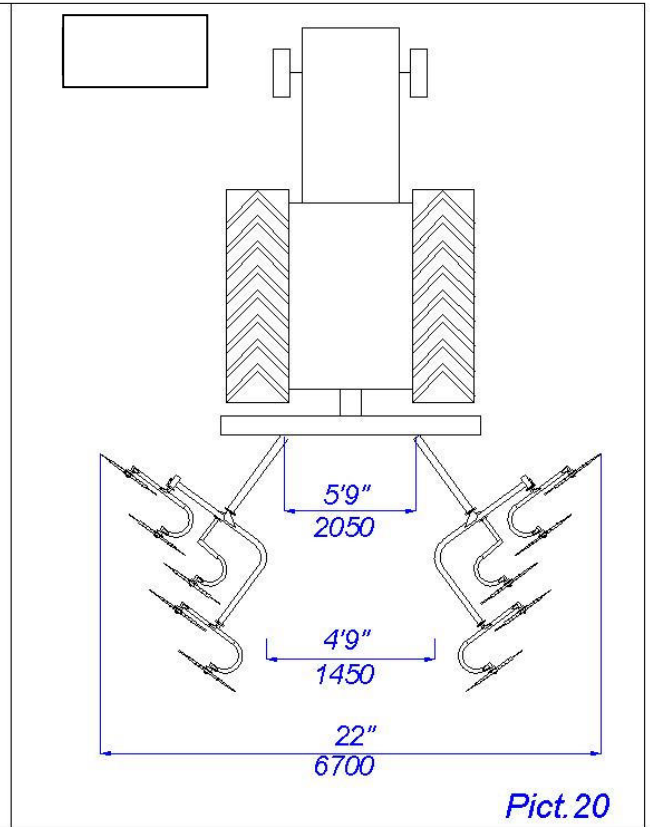
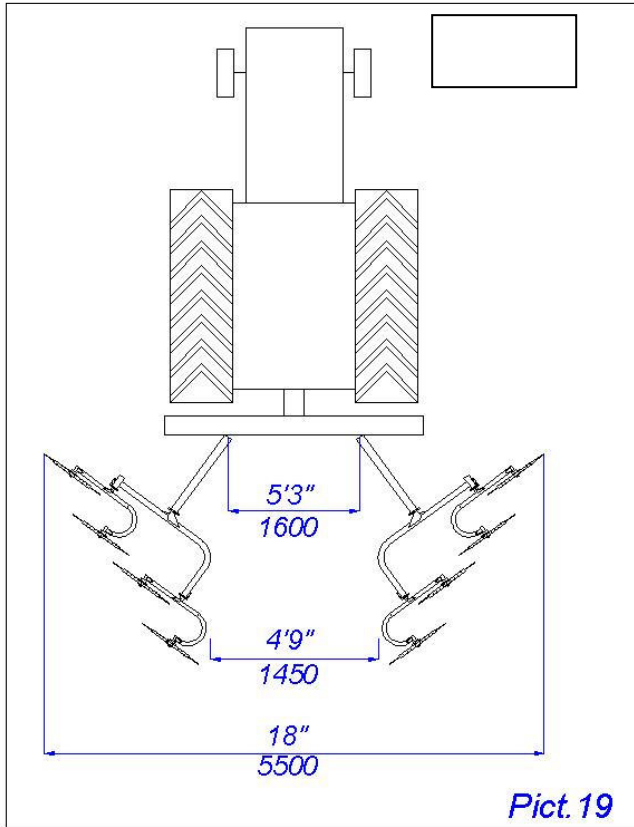
For the V-rakes transport please refer to the AWG-04 rake transport.  
 Pictures 13 and 14 below show the transport position of AWG-08 and AWG-10 V - rakes



Before operating the rake and after you have reached the field, unlock pin (21) (pict. 7 and relevant notes). This will enable the rake to float independent of the Mainframe.

Next, adjust the rake angle by positioning the pin (11) into the holes 2 to 7 (pict. 15). Hole is for transport only.

AWG-8 and AWG-10 rakes are properly designed for windrowing, as ideal implement to complement the big balers. Slide the AWG-4 rakes on the frame (1) to get different working widths. Below (pict. 19-20) is the ideal positioning of the rake for a swath suitable for a 5 pick-up baler.





PROBLEM	CAUSES	REMEDIES
1) Wheel does not unload hay	1) New tine, too much paint on it.  2) Mud on tine point due to moist soil.	Have the wheels be turning on gravelly soil until the tine is clean again. 2) The wheels are too close to the ground
2) Tine failure	1) Going backwards with wheels not lifted,  2) Too much pressure on the wheels.  3) Tine rusted.	1) Lift the wheels before going backwards  2) Lightly lift the rake.  3) Protect it by oiling.
3) The rake does not collect the hay	1) The wheel is too much vertical inclined angle to the ground  2) Tine worn out.	1) By setting the 3 <sup>rd</sup> point arm, bring the wheel vertical to the ground.  2) Replace it. We recommend replacing all tines worn to a uniform height.
4) Too much floating of wheels.	1) Wheels too far from ground.	1) Slightly lower the rake.
5) Bent tine	1) Going backwards with the wheels not lifted,  2) Too much speed on rough soil.  Going across deep and narrow ditches Too much weight on the wheels.	1) Lift the wheels when going backwards  Reduce speed.  Reduce your speed 4) Lightly lift the rake.

## SAFETY PRECAUTIONS

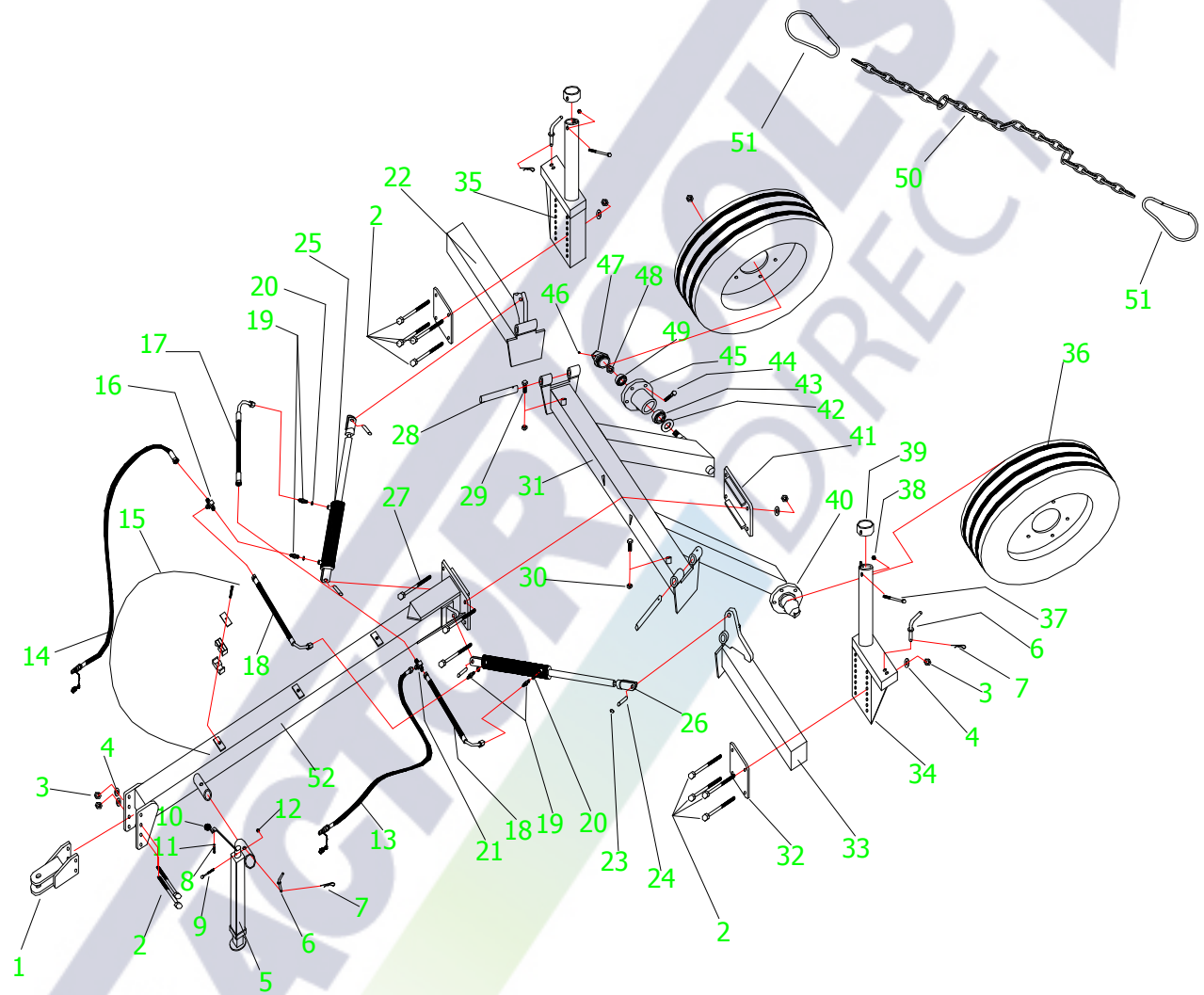
Picture No:	Parts code	Parts Name	Using Aim	Problem	Precautions
- -	01 – 50 01 – 51	Chain	To hinder being damaged the rake's arm or attachment components because of much loading during the transporting.	Any of components could be broken or damaged because of rocking during the transporting.	Project chain between two arm.
- -	02 – 16	Under Lock Lama	To prevent damaging the front arrangement and its components because of rocking its self during the transporting.	The front arrangement could cause damaging to its self and components because of rocking its self during the transporting.	Project under lock lama.
AWG-10 03 – 01	02 – 17	Side Lock Lama	To hinder being damaged of the attachment of main pipe and front arrangement to each other because of being shaken during the operating in the field.	The attachment of main pipe and front arrangement to each other could be damaged because of being shaken during the operating in the field.	Project the side lock lama
- -	02 – 13	Cultivator Linch	Especially to reduce the effect of being damaged because of being shaken during the operating and prevent the machine being damaged for this reason.	The back pipe of front arrangement could damage the system with hard and sudden strokes because of effects of shaking.	Assemb the cultivator linch.
AWG 04	02 – 35	Wire Stand Plate	To increase the life of montage and to prevent the getting out of gragg collection wire its housing because of making pressure on the tines which are on the rake part.	The grass collection wire could get out of its housing and / or the bolts and nuts could be out of use because of being deformed.	Project the wire stand plate.

**AWG – 04**

This technical diagram illustrates the exploded view of a tractor wheel assembly, designated as AWG-04. The assembly is shown in a disassembled state, with various components labeled with green numbers and connected by red dashed lines indicating their assembly sequence and relative positions. The main components include a central axle (26), a hub (20), a wheel rim (23), and a tire (43). Other parts include a spring (18), a shock absorber (19), a brake pedal (17), a brake master cylinder (16), a brake slave cylinder (15), a brake line (14), a brake hose (13), a brake caliper (12), a brake disc (11), a brake pad (10), a brake shoe (9), a brake drum (8), a brake lever (7), a brake cable (6), a brake arm (5), a brake bracket (4), a brake pin (3), a brake nut (2), a brake bolt (1), a brake pin (21), a brake pin (22), a brake pin (25), a brake pin (28), a brake pin (29), a brake pin (30), a brake pin (31), a brake pin (32), a brake pin (33), a brake pin (34), a brake pin (35), a brake pin (36), a brake pin (37), a brake pin (38), a brake pin (39), a brake pin (40), a brake pin (41), a brake pin (42), a brake pin (43), a brake pin (44), a brake pin (45), a brake pin (46), a brake pin (47), a brake pin (48), a brake pin (49), a brake pin (50), a brake pin (51), a brake pin (52), a brake pin (53), a brake pin (54), a brake pin (55), a brake pin (56), a brake pin (57), a brake pin (58), a brake pin (59), a brake pin (60), a brake pin (61), a brake pin (62), a brake pin (63), a brake pin (64), a brake pin (65), a brake pin (66), a brake pin (67), a brake pin (68), a brake pin (69), a brake pin (70), a brake pin (71), a brake pin (72), a brake pin (73), a brake pin (74), a brake pin (75), a brake pin (76), a brake pin (77), a brake pin (78), a brake pin (79), a brake pin (80), a brake pin (81), a brake pin (82), a brake pin (83), a brake pin (84), a brake pin (85), a brake pin (86), a brake pin (87), a brake pin (88), a brake pin (89), a brake pin (90), a brake pin (91), a brake pin (92), a brake pin (93), a brake pin (94), a brake pin (95), a brake pin (96), a brake pin (97), a brake pin (98), a brake pin (99), a brake pin (100).

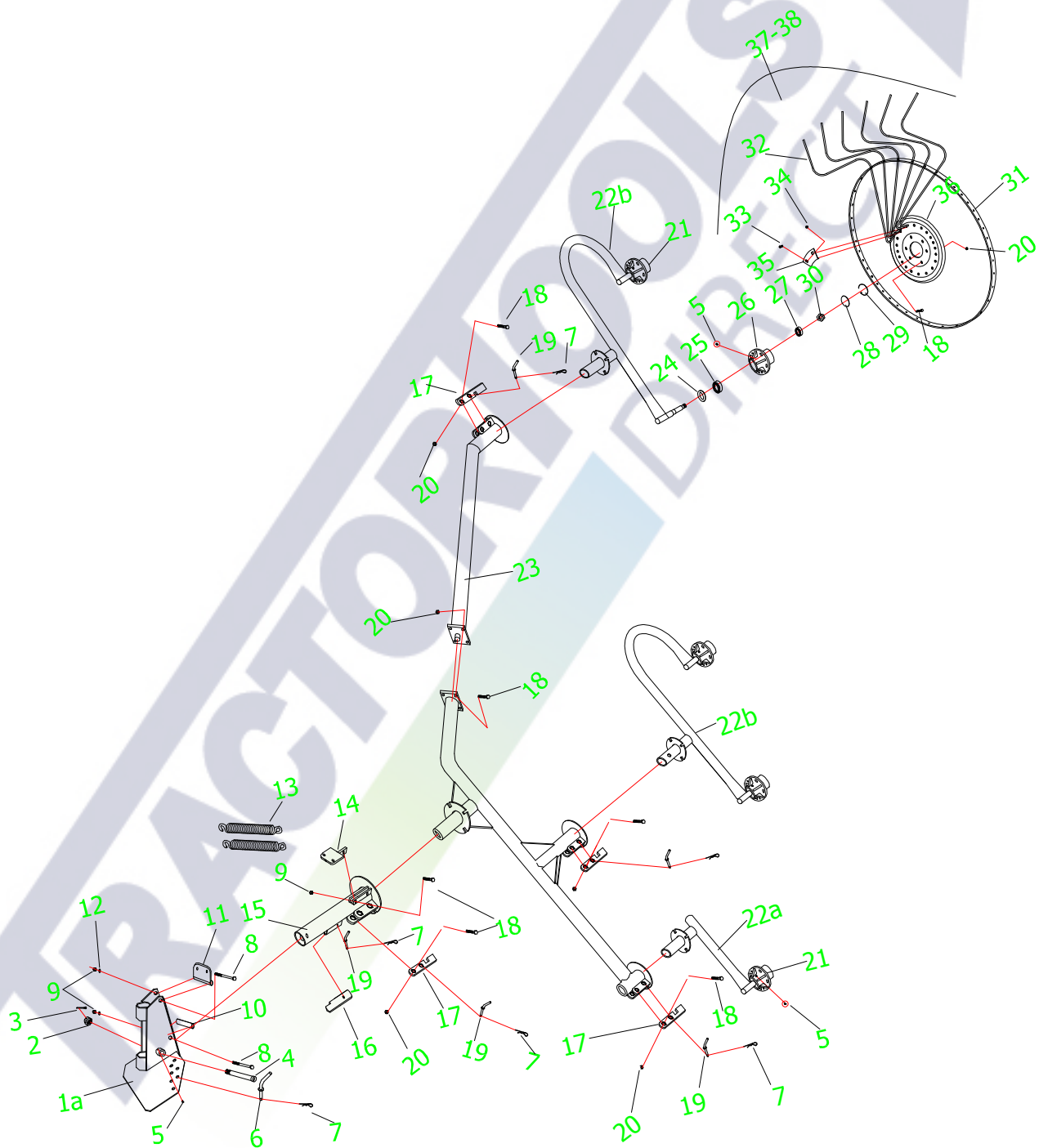
NO	PART #	DESCRIPTION	PIECE
1	AWG-04 01	Support	1
2	AWG-04 02	R Lock Pin M7	1
3	AWG-04 03	Under of front arrangement	1
4	AWG-04 04	Bolt M12*90	1
5	AWG-04 05	Nut M12	1
6	AWG-04 06	Front arrangement	1
7	AWG-04 07	Castle nut 7/8	1
8	AWG-04 08	Cottor Pin 5/5	1
9	AWG-04 09	Pin M24	1
10	AWG-04 10	AWGease nipple M8	5
11	AWG-04 11	Pin M16	1
12	AWG-04 12	R Lock Pin M4	5
13	AWG-04 13	Bolt M12*120	2
14	AWG-04 14	Nut M12	2
15	AWG-04 15	Intermediate tube	1
16	AWG-04 16	Upper spring retainig plate	1
17	AWG-04 17	Middle link coupling	1
18	AWG-04 18	Suspension spring M10*50	2
19	AWG-04 19	Lower spring retainig plate	1
20	AWG-04 20	Connection bar	1
21	AWG-04 21	Lower lock lama	1
22	AWG-04 22	Side lock lama	3
23	AWG-04 23	Bolt M12*40	10
24	AWG-04 24	Barbed spangle M12	2
25	AWG-04 25	Pin M12	4
26	AWG-04 26	Main pipe	1
27	AWG-04 27	Axis	2
28	AWG-04 28	Completed hub	4
29	AWG-04 29	Gaiters circle	4
30	AWG-04 30	Bearing 6205	4
31	AWG -04 31	Hub	4
32	AWG -04 32	Bearing 4204	4
33	AWG -04 33	Hub cover	4
34	AWG -04 34	Piston ring	4
35	AWG -04 35	Nut ¾	4
36	AWG -04 36	Circle	4
37	AWG -04 37	Grass concentration wire ø6,5mm	160
38	AWG -04 38	Pan -head bolt 3/8*25	80
39	AWG -04 39	NC Nut 3/8	80
40	AWG -04 40	Wire stand plate	40
41	AWG -04 41	Rim sheet metal	4
42	AWG -04 42	Fiber bolt M12	9
43	AWG -04 43	Collected wire circle	4





## AWG – 10 01

NO	PART #	DESCRIPTION	PIECE
1	AWG-01 01	Pintle	1
2	AWG-01 02	Bolt	10
3	AWG-01 03	Fibre nut M16	10
4	AWG-01 04	Washer M16	10
5	AWG-01 05	Jack	1
6	AWG-01 06	Pin M14	3
7	AWG-01 07	Cottor pin	3
8	AWG-01 08	Bolt	1
9	AWG-01 09	Bolt	1
10	AWG-01 10	Mace	1
11	AWG-01 11	Washer	1
12	AWG-01 12	Nut	1
13	AWG-01 13	Hose 3.00m	1
14	AWG-01 14	Hose 3.25m	1
15	AWG-01 15	Hose collar	2
16	AWG-01 16	UNF T ¾	1
17	AWG-01 17	R2 90° corner hose 3/8*33cm	1
18	AWG-01 18	R2 90° corner hose 3/8*40cm	2
19	AWG-01 19	UNF Nipple ¾	4
20	AWG-01 20	Washer ¾	4
21	AWG-01 21	UNF T ¾	1
22	AWG-01 22	Lift arm RH	1
23	AWG-01 23	Circlip	2
24	AWG-01 24	Pin of lift	2
25	AWG-01 25	Lift	2
26	AWG-01 26	Headgear	2
27	AWG-01 27	Bolt M16*150	4
28	AWG-01 28	Pin	2
29	AWG-01 29	Bolt	2
30	AWG-01 30	Nut	2
31	AWG-01 31	Back frame	1
32	AWG-01 32	Plate of front arrangement	2
33	AWG-01 33	Lift arm LH	1
34	AWG-01 34	Under of front arrangement LH	1
35	AWG-01 35	Under of front arrangement RH	1
36	AWG-01 36	Wheel	2
37	AWG-01 37	Bolt	2
38	AWG-01 38	Nut	2
39	AWG-01 39	Ring	2
40	AWG-01 40	Hub assembly	2
41	AWG-01 41	Plate of frame	1
42	AWG-01 42	Oil seal	2
43	AWG-01 43	Bearing	2
44	AWG-01 44	Pin	10
45	AWG-01 45	Hub	2
46	AWG-01 46	Grease nipple	2
47	AWG-01 47	Cap of hub	2
48	AWG-01 48	Nut	2
49	AWG-01 49	Bearing	2
50	AWG-01 50	Chain	1
51	AWG-01 51	Safety pin	2
52	AWG-01 52	Drawbar 21	1



02

NO	PART #	DESCRIPTION	PIECE
1	AWG-02 01	Front arrangement	2
2	AWG-02 02	Castle nut 7/8	2
3	AWG-02 03	Cotter pin 5/5	2
4	AWG-02 04	Pin M24	2
5	AWG-02 05	Grease nipple	12
6	AWG-02 06	Pin M16	2
7	AWG-02 07	Cotter pin M4	12
8	AWG-02 08	Bolt M12*120	4
9	AWG-02 09	Nut M12	5
10	AWG-02 10	Intermediate tube	2
11	AWG-02 11	Upper spring retaining plate	2
12	AWG-02 12	Washer M12	4
13	AWG-02 13	Suspension spring 10*50	4
14	AWG-02 14	Lower spring retaining plate	2
15	AWG-02 15	Connection bar	2
16	AWG-02 16	Lower lock lama	2
17	AWG-02 17	Side lock lama	8
18	AWG-02 18	Bolt M12*40	11
19	AWG-02 19	Pin M12	5
20	AWG-02 20	Nut M12	10
21	AWG-02 21	Hub assembly	10
22a	AWG-02 22	Single axis	2
22b	AWG-02 23	Axis	4
23	AWG-02 24	Main pipe	2
24	AWG-02 25	Gaiters circle	10
25	AWG-02 26	Bearing 6205	10
26	AWG-02 27	Hub	10
27	AWG-02 28	Bearing 4204	10
28	AWG-02 29	Hub cover	10
29	AWG-02 30	circlip	10
30	AWG-02 31	Nut ASA-B-18-2-2	10
31	AWG-02 32	circle	10
32	AWG-02 33	Grass concentration wire	400
33	AWG-02 34	Pan head bolt 6/8	200
34	AWG-02 35	NC nut 3/8	200
35	AWG-02 36	Wire standplate	100
36	AWG-02 37	Rim sheet metal	10
37	AWG-02 38	Wheel assembly LH	5
38	AWG-02 39	Wheel assembly RH	5

AWG – 10



TRACTOR TOOLS DIRECT

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**TRACTORTOOLS**  
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